



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
2100 RENAISSANCE BLVD.  
KING OF PRUSSIA, PA 19406-2713

August 31, 2016

Mr. Timothy S. Rausch  
Senior Vice President and Chief Nuclear Officer  
PPL Susquehanna, LLC  
769 Salem Boulevard, NUCSB3  
Berwick, PA 18603

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORT 05000387/2016005 AND 05000388/2016005)

Dear Mr. Rausch:

On August 9, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Susquehanna Steam Electric Station (SSES) Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015 through June 30, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, SSES Units 1 and 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at SSES Units 1 and 2 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

As of January 1, 2016, SSES Units 1 and 2 transitioned to the Licensee Response Column after the successful completion of a supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," on November 6, 2015. The results of this inspection are documented in NRC Supplemental IR 05000387/2015505 and 05000388/2015505 (ML15352A230) dated December 17, 2015.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition to ROP baseline inspections, the NRC will perform Inspection Procedure (IP) 60855.1, "Operation of an ISFSI Independent Spent Fuel Storage Installation at Operating Plants." The inspections listed during the last half of the inspection period in the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 2515-191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 610-337-5262 with any questions you have regarding this letter.

Sincerely,

/RA/

Daniel L. Schroeder, Chief  
Projects Branch 4  
Division of Reactor Projects

Docket Nos. 50-387 and 50-388  
License Nos. NPF-14 and NPF-22

Enclosure:  
Inspection Plan

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 2515-191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 610-337-5262 with any questions you have regarding this letter.

Sincerely,

/RA/

Daniel L. Schroeder, Chief  
 Projects Branch 4  
 Division of Reactor Projects

Docket Nos. 50-387 and 50-388  
 License Nos NPF-14 and NPF-22

Enclosure:

Distribution: (See next page)

Document Name: S:\ROP Assessment Meetings\ROP-17 Mid-Cycle Review\Branch 4\SUSQ Mid-Cycle ROP17 Letter Final.docx

ADAMS ACCESSION NUMBER: ML16237A002

<input checked="" type="checkbox"/> SUNSI Review Complete		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP			
NAME	SBarber/SB	DSchroeder			
DATE	08/23/2016	08/23/16			

Letter to Mr. Timothy Rausch from Daniel L. Schroeder dated, August 31, 2016

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (REPORT 05000387/2016005 AND 05000388/2016005)

DISTRIBUTION:

DDorman, ORA

DLew, DRA

MScott, DRP

DPelton, DRP

RLorson, DRS

DSchroeder, DRP

SBarber, DRP

ATurilin, DRP

PMeier, DRP

JGreives, DRP, SRI

TDaun, DRP, RI

AGould, DRP, AA

JBowen, RI, OEDO

RidsNrrPMSusquehanna Resource

RidsNrrDorlLp1-2 Resource

[ROPreports Resource](#)

[ROP Assessment](#)

DRS Branch Chiefs (6)

NMcNamara, RI, SLO

DTiff, RI, SLO

DScrenci, RI, PAO

NSheehan, RI, PAO

[RidsNrrDirslpab Resource](#)

ROPassessment Resource

**Susquehanna**  
**Inspection / Activity Plan**  
**07/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>11/14EXM - SUSQUEHANNA INITIAL EXAM</b>		<b>4</b>
1	10/17/2016	10/21/2016	U01931	FY17-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
1	11/14/2016	11/25/2016	U01931	FY17-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
			<b>ISFSI - ISFSI LOADING CAMPAIGN INSPECTION</b>		<b>2</b>
1, 2	08/29/2016	09/02/2016	IP 60855	Operation Of An ISFSI	
1, 2	08/29/2016	09/02/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>EP - EP EXERCISE EVALUATION</b>		<b>4</b>
1, 2	10/17/2016	10/21/2016	IP 7111401	Exercise Evaluation	
			<b>71124.06 - RETS</b>		<b>1</b>
1, 2	09/12/2016	09/16/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	09/12/2016	09/16/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>7111121 - CDBI</b>		<b>6</b>
1, 2	09/19/2016	09/23/2016	IP 7111121	Component Design Bases Inspection	
1, 2	10/03/2016	10/07/2016	IP 7111121	Component Design Bases Inspection	
1, 2	10/17/2016	10/21/2016	IP 7111121	Component Design Bases Inspection	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
1, 2	10/03/2016	10/07/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/03/2016	10/07/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	10/03/2016	10/07/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
			<b>71124.08 - RADWASTE</b>		<b>1</b>
1, 2	10/17/2016	10/21/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
2	03/06/2017	03/10/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2	03/06/2017	03/10/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/06/2017	03/10/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			<b>7111108G - U2 INSERVICE INSPECTION</b>		<b>1</b>
2	03/13/2017	03/17/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>71124.07 - REMP</b>		<b>1</b>
1, 2	06/26/2017	06/30/2017	IP 71124.07	Radiological Environmental Monitoring Program	
			<b>7111105T - TRIENNIAL FIRE PROTECTION</b>		<b>4</b>
1, 2	08/14/2017	08/18/2017	IP 7111105T	Fire Protection [Triennial]	
1, 2	08/28/2017	09/01/2017	IP 7111105T	Fire Protection [Triennial]	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Susquehanna**  
**Inspection / Activity Plan**  
**07/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>711111B - SQ REQUAL INSP WITH P/F RESULTS</b>		<b>2</b>
1, 2	10/30/2017	11/03/2017	IP 711111B	Licensed Operator Requalification Program	
			<b>11/6EXAM - SUSQUEHANNA INITIAL OL EXAM</b>		<b>4</b>
1	02/05/2018	02/09/2018	U01950	FY18-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
1	03/05/2018	03/16/2018	U01950	FY18-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
1, 2	10/02/2017	10/06/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/02/2017	10/06/2017	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>1</b>
1, 2	10/30/2017	11/03/2017	IP 7111402	Alert and Notification System Testing	
1, 2	10/30/2017	11/03/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	10/30/2017	11/03/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	10/30/2017	11/03/2017	IP 71151	Performance Indicator Verification	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
1, 2	12/11/2017	12/15/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	12/11/2017	12/15/2017	IP 71124.04	Occupational Dose Assessment	
1, 2	12/11/2017	12/15/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	12/11/2017	12/15/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
1	03/05/2018	03/09/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	03/05/2018	03/09/2018	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/05/2018	03/09/2018	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			<b>U1 ISI - UNIT 1 INSERVICE INSPECTION</b>		<b>2</b>
1	03/05/2018	03/09/2018	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>71152B - PI&amp;R BIENNIAL</b>		<b>1</b>
1, 2	06/04/2018	06/08/2018	IP 71152B	Problem Identification and Resolution	
1, 2	06/18/2018	06/22/2018	IP 71152B	Problem Identification and Resolution	
			<b>71124 - HP INSPECTION</b>		<b>1</b>
1, 2	05/14/2018	05/18/2018	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	05/14/2018	05/18/2018	IP 71124.04	Occupational Dose Assessment	
1, 2	05/14/2018	05/18/2018	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>HEAT - TRIENNIAL HEAT SINK</b>		<b>1</b>
1, 2	05/14/2018	05/18/2018	IP 7111107T	Heat Sink Performance	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Susquehanna**  
**Inspection / Activity Plan**  
**07/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
<b>7111117T - PERMANENT PLANT MODIFICATIONS</b>					
1, 2	06/04/2018	06/08/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	3
1, 2	06/18/2018	06/22/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	

This report does not include INPO and OUTAGE activities.  
 This report shows only on-site and announced inspection procedures.